

CLAIMS

1. A method for production of metallic powder, the method comprising:
reducing metal chloride continuously by contacting the metal chloride gas and reducing gas, and
cooling metallic powder generated by the reducing process by inert gas continuously,
wherein the inert gas is blown from one or more parts around a flow passage of the metallic powder to generate a vortex flow.
2. The method for production of metallic powder according to claim 1, wherein the vortex flow is generated in the vertically downward direction.
3. The method for production of metallic powder according to claim 1, wherein the parts at which inert gas is blown are not less than four at equal intervals.
4. The method for production of metallic powder according to claim 1, wherein the blowing direction of inert gas is inclined at 5 to 25 degrees from the horizontal direction.
5. The method for production of metallic powder according to claim 1, wherein the supplied amount of the inert gas is 5 Nl/min per 1 g of the metallic powder.
6. The method for production of metallic powder according to claim 1, wherein the temperature of the inert gas is set at from 0 to 100°C.

7. The method for production of metallic powder according to claim 1, wherein the metal chloride gas is generated by contacting chlorine gas continuously with solid metal, or by heating and evaporating solid metal chloride.
8. The method for production of metallic powder, the method including the cooling process according to claim 1, and a secondary cooling process according to one of claims 1 to 6.
9. The method for production for metallic powder according to claim 1, wherein inert gas flow is generated in a downward direction along the inner wall of the reducing furnace continuously during the production of the metallic powder.
10. A production device for metallic powder, the device comprising:
a chlorinating furnace chlorinating metal therein, and
a reducing furnace reducing metal chloride gas generated in the chlorinating furnace to form a metallic powder,
the reducing furnace further comprising a cooling process part for cooling the metallic powder generated in the reducing furnace,
wherein inert gas is blown from one or more parts around a flow passage of the metallic powder to generate a vortex flow in the cooling process.
11. The production device for metallic powder according to claim 10, wherein a secondary cooling process according to one of claims 1 to 6 is performed after the cooling process according to claim 10.

12. The production device for metallic powder according to claim 10, wherein inert gas flow is continuously generated in the downward direction along the inner wall of the reducing furnace during the production of the metallic powder.